

Globe Light and Power Plants





LET THERE BE LIGHT

LEAD FROM the very beginning of things, we have been seeking more and better light because good light is one of the most important sources of comfort. The development of the artificial light from the ancient torch and tallow dip to the Sun's latest rival—electricity—has been slow. Still it is only about thirty years since electricity was introduced for lighting purposes in towns and cities. Electric light has proven the most effective and efficient that the ingenuity of man has been able to harness to his needs.

Only very recently, however, has the comfort, economy and utility of electric current been brought within the reach of the home or small business where municipal electric service is not available. Since the introduction of the isolated electric plant, its success has been phenomenal.

The Farm Lighting Plant, as it is generally called, has come to stay. The farmer and his family appreciate, just as much as the city folk, the comfort afforded by good light. Nobody loves the kerosene lamp, so electricity—put within the reach

*Electric light makes
home life on the
farm ideal*





of every farmer by GLOBE Light and Power plants is rapidly replacing the older and ineffective methods of lighting. The day will come when kerosene lamps will be as scarce on the farm as they are now in the city home.

WHAT A GLOBE LIGHT AND POWER PLANT WILL DO IN YOUR HOME

The fact that electricity on the farm is an actual necessity and not a luxury is becoming widely recognized.

Electricity is man's greatest servant. The GLOBE Light and Power Plant puts electric current at your disposal in the home, barn or any of the farm buildings and the electric current

*No beating or sweeping
of carpets necessary*



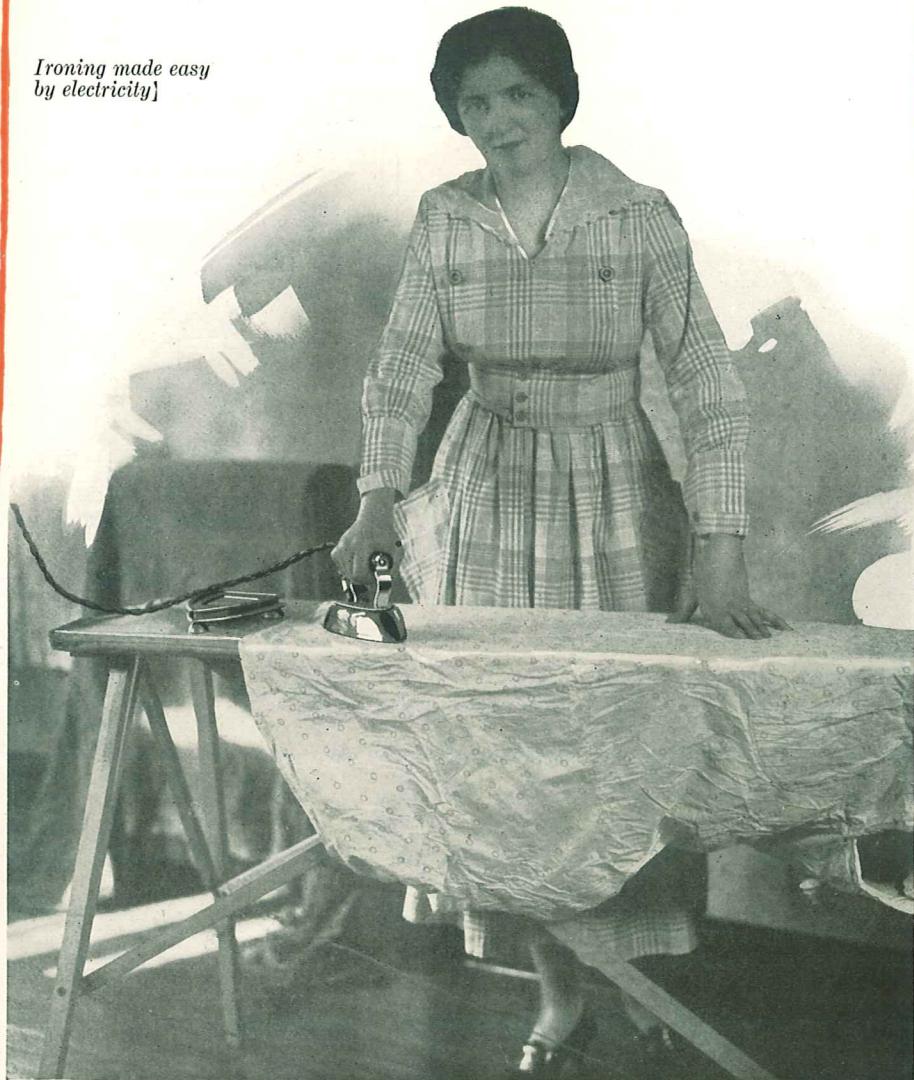


can be used both for light and for power. Once electricity is available, there are a great number of conveniences and labor-saving devices to which it can be harnessed—all of them making life more comfortable and attractive and saving time and labor.

ELIMINATES FIRE HAZARD

With electricity, danger from fire is practically eliminated. The use of the coal oil lantern in farm buildings has always been a serious menace in addition to providing very inefficient light. The practical side of electricity is that proper lighting

*Ironing made easy
by electricity]*





saves time and labor as well as reduces the fire risk. The worker on the farm appreciates the convenience of being able to turn a switch or press a button and have plenty of light available in a second. This is a great help if sick cattle need attention at night or where milking or other work has to be done during the hours of darkness.

ADDS TO HOME COMFORT

In the home, electric light makes for more comfort. There is no strain on the eye-sight caused through trying to read by the ineffective glimmer of a coal oil lamp. There is no lamp cleaning to be done—a fact the housewife will appreciate.

A GLOBE Light and Power Plant provides all the light needed on the farm, as well as power, at a cost that is so small

*Electricity takes the
work out of
washday*





as to be almost negligible. In fact, it furnishes dependable power at so low a cost that it will effect an actual saving in labor cost per year greater than the initial cost of the plant.

To the housewife it makes possible the use of those electrically operated appliances which prove great time and labor savers. The washing machine can be operated either by electric motor or belt power from the pulley on the engine of the GLOBE plant. Power washing machines take the backache out of wash-day and in addition do the washing better than the old method of rubbing and scrubbing.

The electric flat-iron does the ironing in a better, quicker and more convenient way. In the warm summer months the necessity of heating irons over a hot stove is eliminated by using an electric iron and the heat of the iron is always under control so that scorching of the clothes is avoided.

Then the vacuum cleaner can be used to do entirely away with the disagreeable labor of sweeping with the broom and beating rugs and carpets.

On the table, electricity can be used for the coffee percolator, the toaster and other neat and convenient appliances to which the lady of the farm is as justly entitled as her sister in the city.

*Run the cream separator
by electricity*





POWER

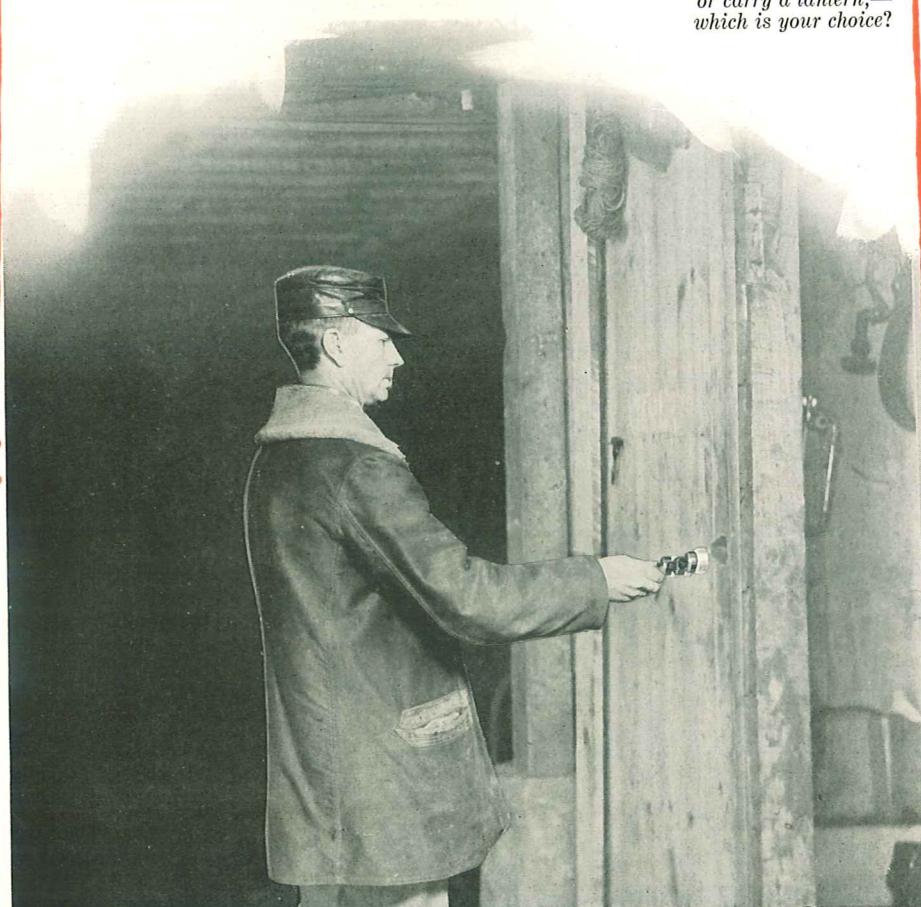
It is possible to apply the power of the GLOBE Light and Power Plant in either of three ways.

First, the entire 3 H. P. of the engine may be used to drive by a belt from the engine pulley, milking machine pumps, feed grinders, water pumps or a line shaft, and from the line shaft a series of small machines may be driven such as churns, cream separators or other power jobs which readily suggest themselves.

Second, the engine may be used to run the generator only and furnish current for electric irons, electric motors or to charge the battery.

Third, the engine may be used to drive light machinery by a belt from the engine pulley and charge the batteries at the same time, this gives a great operating economy in fuel.

*Snap a switch,
or carry a lantern,—
which is your choice?*





By means of the portable utility motor, electric power can be used anywhere on the premises where a lamp socket is convenient. In this way, the utility motor can run the separator or it can be attached to the grindstone—thus saving a great deal of time and trouble, as anyone who has sharpened farm tools by foot power will realize.

POWER FOR FARM WATER SYSTEM

Another important improvement made available by the use of a GLOBE Light and Power Plant is the pressure water system which pumps the water automatically, forcing it through the pipes so that water under pressure is available for the kitchen sink, bath-room and toilet. It can be piped to the barn so that water for the stock can be obtained by just turning on the faucet.

With the GLOBE Light and Power Plant electricity is always available—this continuous power ready for use at the pressure of a button makes electricity the ideal chore worker on the farm.

*Electric light in the barn
makes work easy*





WHY YOU SHOULD SELECT A GLOBE PLANT

There are many electric lighting plants on the market, but there is only one plant so carefully designed as to give the best service under all the actual working conditions on the farm. The GLOBE Light and Power Plant has more real and necessary advantages than any other standard plant. It gives you the best and most economical service with the least trouble and attention. As evidence of the proven and tested design of the GLOBE Plant we point to its numerous superior features.

In the first place, the GLOBE Light and Power Plant is constructed like the plants used in central stations for city light and power service. The only difference is that it is smaller. In other words, with the GLOBE Light and Power Plant you have central station equipment with all its reliability but in a size to suit your requirements.

THE RESULT OF MANY YEARS EXPERIENCE

There is nothing experimental about the GLOBE plant. We are pioneers in the designing and manufacture of farm light-

*Electricity adds to the
value of the barn*





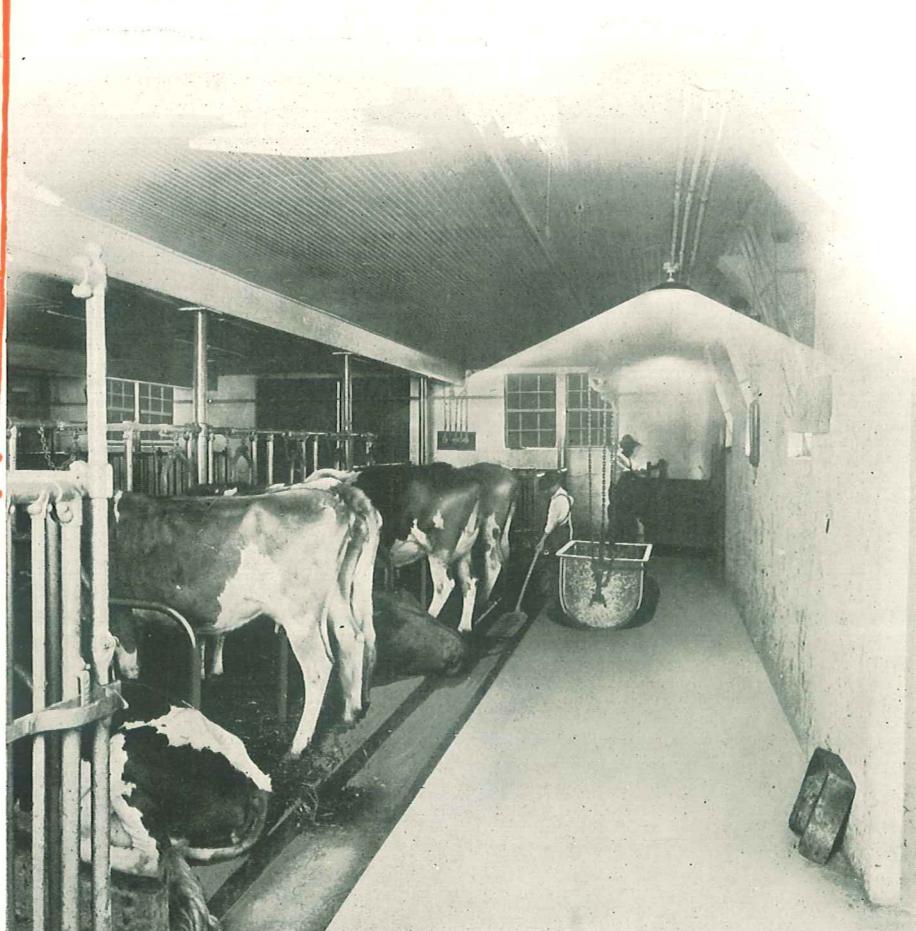
ing equipment. Our extended experience is built into this plant so as to give the most reliable and economical service day and night, year in and year out, with the least attention and a minimum of expense.

BUILT COMPLETE IN OUR FACTORIES

It is not an "assembled" outfit—for we make the entire GLOBE plant. Each unit entering into the construction of the plant is properly related to the other—a mechanical combination that insures the best results.

The GLOBE Light and Power Plant is of the low voltage type. It cannot shock or burn, yet it has ample capacity to give light in abundance and power to operate all light farm machinery, including all standard makes of milking machines.

*Where plenty of light
is appreciated*





The Plant consists of a 4-cycle engine of the automobile type with splash lubrication and a well balanced crank shaft—

A generator which is connected by a flexible coupling to the engine—

A fuel tank of one gallon capacity—

A water tank by means of which the engine is cooled by the Thermo-Siphon system—

A storage battery of 16 cells, sealed glass jars—Faure Type—

A switchboard on which is mounted a starting and generator switch, load regulating switch, ammeter, voltmeter, automatic stop and fused service switch.

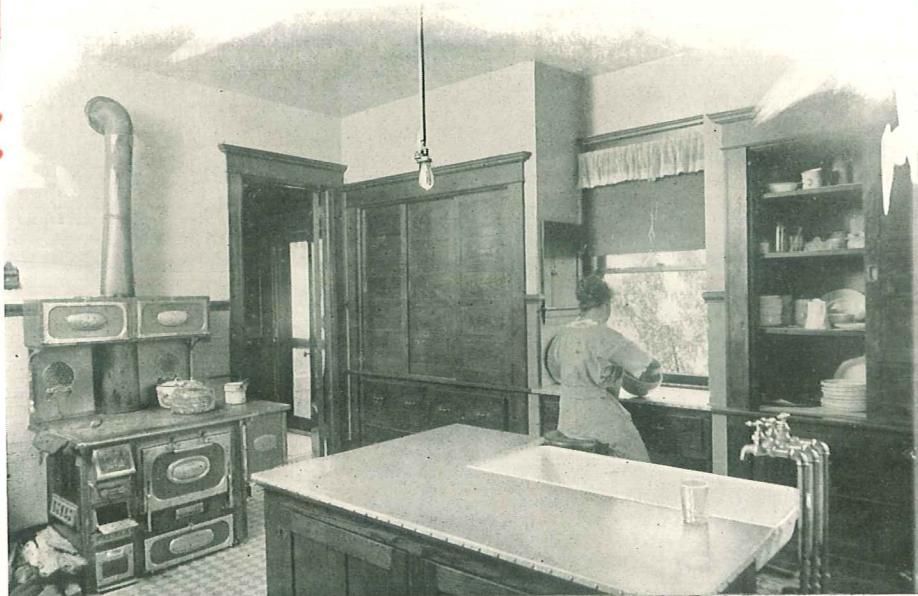
SIMPLE—AUTOMATIC—EASY TO INSTALL

The engine, switchboard, and generator, are all mounted on a metal base. A complete illustration of the plant with description and specifications is shown further on in this book.

The GLOBE Light and Power Plant is so simple that a ten-year old boy can understand and operate it. All that is necessary to start the engine is to push a button. There is no hand cranking.

► There is an automatic stop, of exclusive design on the GLOBE Light and Power Plant, which stops the engine when the battery

The modern farm kitchen; electric light and running water





is fully charged. This automatic stop is more fully described later on in the detailed description of the plant and your particular attention is directed to it.

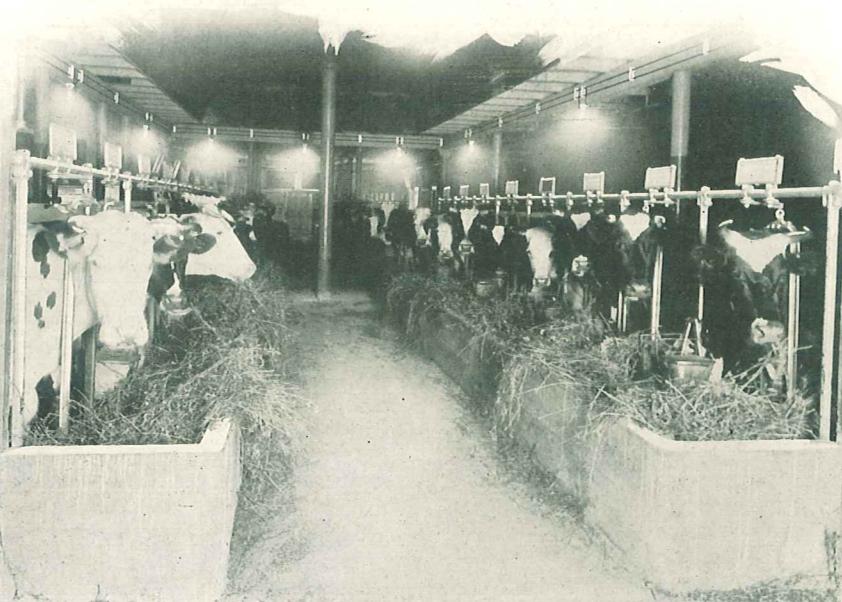
Although simple in design, the GLOBE Light and Power Plant has a rigid strength of construction that makes for long life. GLOBE plants have been operated for years in various parts of the country—giving, as every user testifies, the maximum of service with the minimum of attention.

It is easy to install a GLOBE Lighting Plant and as easy to operate one. The only preparation for installation being a concrete base or foundation located where you want it in the cellar or power house. Plans and instruction for this foundation are given further on in the book.

When the foundation is prepared the plant is set in place and bolted down. Four wires are connected up—two to the battery and two to the light and power service. It is then ready for operation.

Many farm homes are wired for electricity, if not, the farmer is generally enough of a mechanic to wire the house and barn. Or, it is an inexpensive matter to have a nearby electrician do the wiring.

*A simple installation of
good farm lighting*





The GLOBE Light and Power Plant is delivered to the user in such a way that it can be put into service in the shortest possible time and with the least trouble.

The battery furnished with the GLOBE Light and Power Plant comes all ready to use. It is fully charged before leaving the factory so that when they are set in place, and connected to the switchboard the plant is ready for use.

In operating the GLOBE plant the charging rate to the battery may be varied—permitting charging at the correct rate. This lengthens the life of the battery.

DESIGN AND CONSTRUCTION

In the design and construction of the GLOBE Light and Power Plant, there are certain features to which we bring your particular attention. The four-cycle engine is used because it is, without doubt, the most reliable type of internal combustion engine. It can be depended on to operate with widely varying grades of fuel, has long wearing qualities and is simple in con-

Globe plant performing double duty—operating milking machines and lighting barn





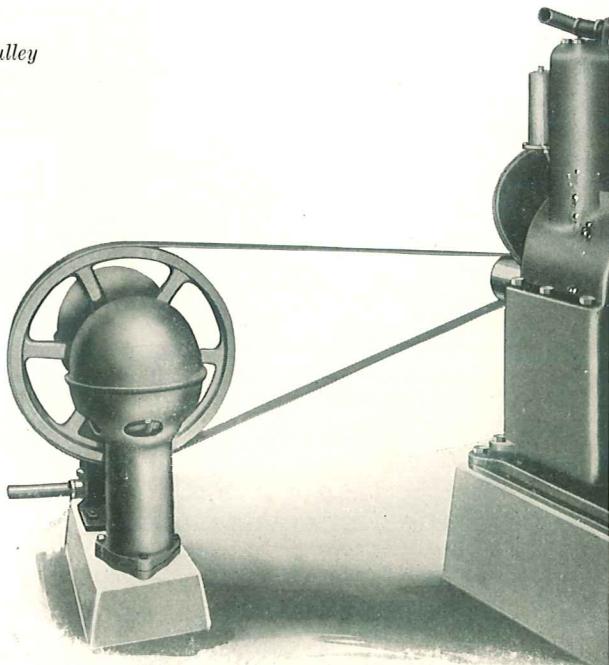
struction. It is better understood by the average person and is the most extensively used type of engine.

The engine develops 3 Horse Power on brake test, using either gasoline or kerosene as fuel. It is provided with a pulley keyed to the crank shaft for carrying a belt power load, and has sufficient power to carry a lighting load of 25 lamps and a 1 Horse Power load on the belt pulley at the same time. When used for generating purposes only, it easily carries 1000 watts and has an overload capacity beyond this. The generating electrical equipment consists of a 1 kilowatt generator with compound starting coils to insure easy starting. The Switchboard contains instruments giving visual indications of the conditions of the load on generator and battery. The GLOBE Battery is always ready to give 24-hour service. Lights can be burned from the generator only, the battery only, or from the battery and generator combined.

PUSH BUTTON STARTER

A push button starting switch is used; an automatic control stops the engine when the battery is fully charged. The complete power unit is assembled on a substantial cast iron base plate 28 inches long and 15 inches wide. A trough is provided

*Pump of milking
machine belted to pulley
of Globe Light and
Power Plant*



Volt and Ammeters

always show what generator is doing.

Four Bearings

Insure longest life and avoid damage to generator armature.

Spec
Hot H

Heats gas after carburetor, ins
operation kerosene

Automatic Cutout:

Stops engine when battery is fully charged (on back of board).

Push Button

Starting, Stopping and Ignition Switch.

Load Regulating Switch:

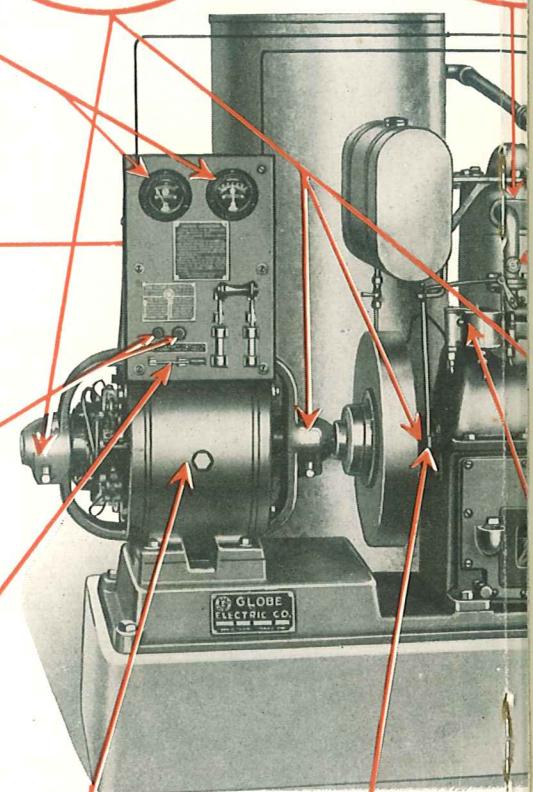
Permits carrying heavy load on engine pulley.

Generator:

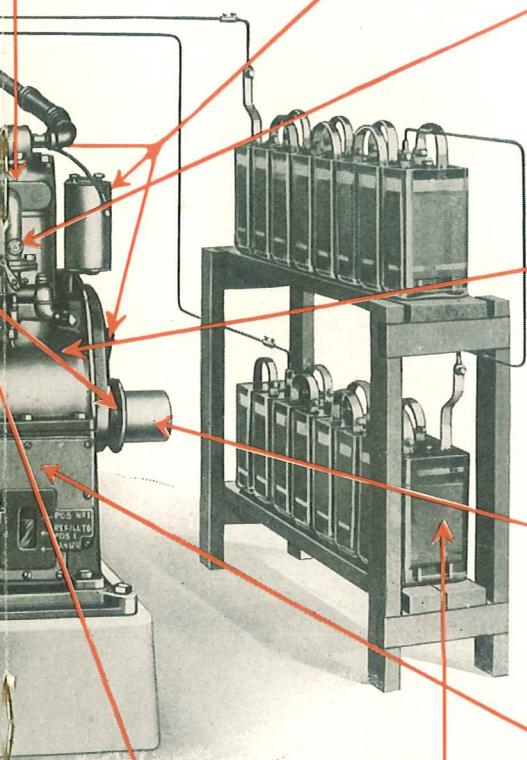
Continuous capacity
1,000 watts, 25 amperes,
40 volts.

Governor:

Centrifugal type, maintaining constant speed and regulating fuel according to load on engine.



pecial
Head:
after it leaves
insuring good
tion with
rosene.



Ignition System:
Spark Coil, Plug and
Timer in accessible positions
with short wire connections.

Hand Throttle:
Permits operating at low speed and highest economy.

Engine:
3 H. P. 4 cycle,
L Head, $2\frac{3}{4} \times 4$ " stroke,
1200 RPM, water cooled,
connected by flexible coupling to
generator.

Pulley:
For direct power drive from
engine, $3\frac{1}{2}$ " diameter
and $3\frac{1}{2}$ " face.

Carburetor:
Standard automobile type with float bowl, air and fuel adjustment and throttle.

Storage Battery:
16 cell sealed glass jar Faure pasted type. Special hard surface plates insure long life.

Hand Hole Cover:
Makes parts easily accessible. Has Oil Gauge giving positive indication of oil level.

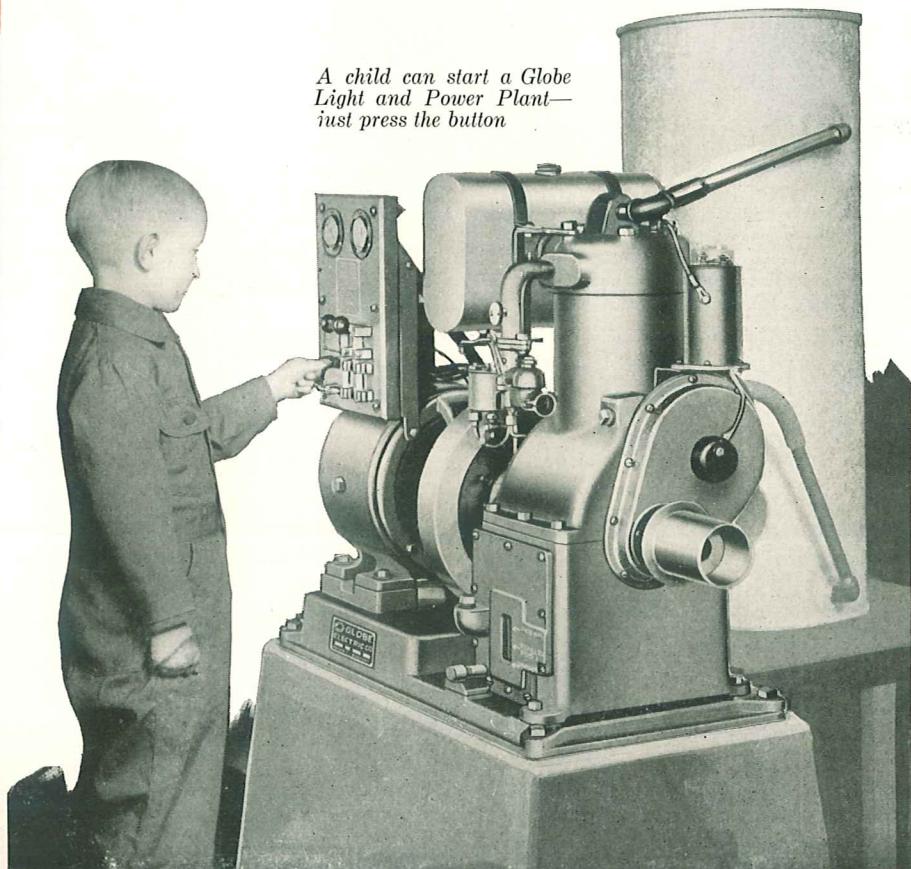


around the entire base to catch any oil that may get on the base through filling or otherwise. There are four holes drilled in the corners of the base for bolting to the foundation.

GENERATOR

The Generator is assembled with a flexible coupling between engine and generator shafts—the generator being supported by two bearings entirely independent of engine bearings. The use of four bearings on the GLOBE Light and Power Plant insures long, continuous wear without adjustment. Slight variations of wear in the main bearings of the engine will have no effect upon the running of the generator or clearance between the revolving armature and stationary pole pieces.

*A child can start a Globe
Light and Power Plant—
just press the button*





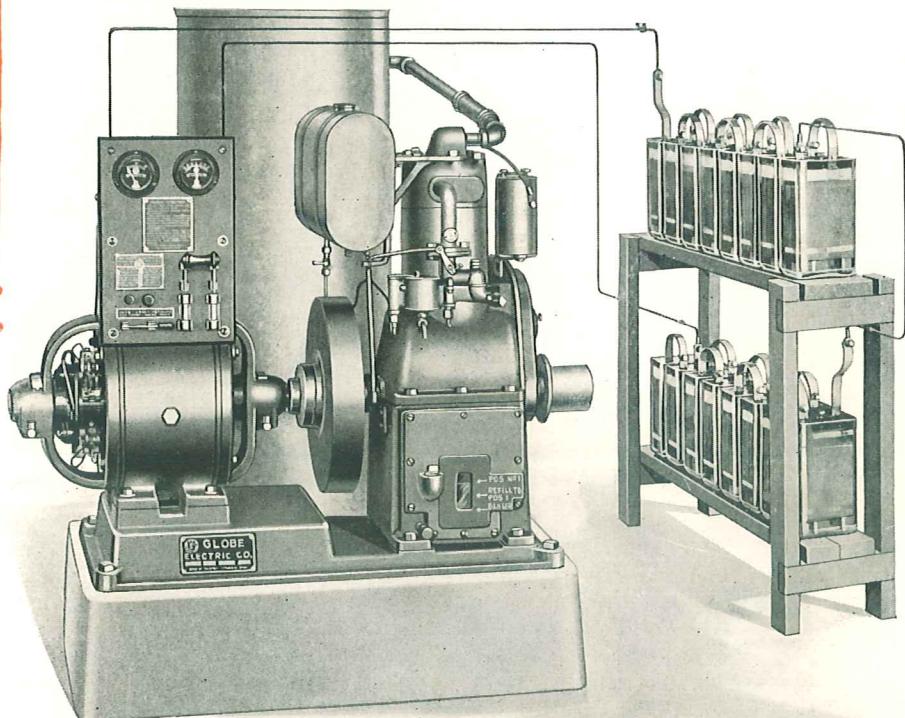
The Switchboard follows the lines of a Central Station Lighting Plant Switchboard—having all the essential parts with automatic safety control for generator and battery. The general assembly of the complete plant is closely patterned after the central station. We, therefore, have in the GLOBE Light and Power Plant, a small but complete central station.

ASSEMBLY

The engine, generator and switch board are assembled as a self contained unit. The switchboard is mounted on top of the generator. The GLOBE Light and Power Plant is most accessible. Every part can be readily inspected and adjusted. The open construction exposes the principal parts to view.

IGNITION

The Ignition system is assembled in a compact manner; timer, spark coil and spark plug all being within a space of a few inches—there being only a 5 inch secondary wire and a 12





inch wire connection between timer and coil. The coil and timer are on the outside of the engine in plain sight—permitting ready inspection or adjustment of timer, coil and spark plug.

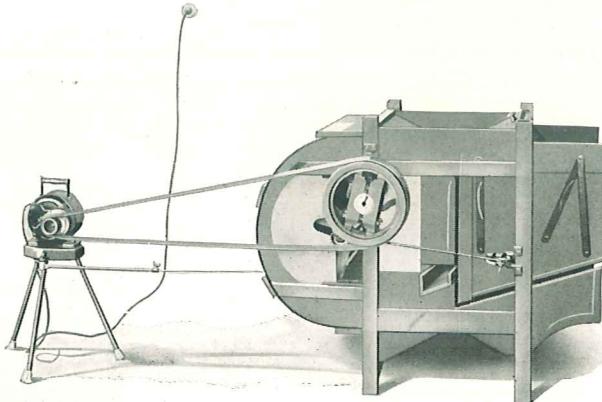
The fuel tank is mounted close to the cylinder and on a line with the cylinder head. This keeps the height of the equipment down and presents a pleasing appearance. There is no possibility of getting fuel on the electric parts of the plant when replenishing the fuel supply. All control parts of engine and switchboard are on the front of the plant and can be observed and inspected by standing in one position. Carburetor and speed can be instantly adjusted for most efficient results. Power load and condition of battery are plainly indicated by instruments.

Oil Level is in prominent view on the front of the engine. The exhaust is straight back from the rear of cylinder and does not interfere with convenient inspection of plant, hot parts being well away from carburetor and entirely absent from the front of the engine.

AUTOMATIC STOP

An automatic stop is a part of the switchboard equipment. This automatically stops the engine when the battery is fully charged. It is not an ampere hour meter as is commonly used on lighting plants, but is a positive means for cutting off charge and stopping the engine when the battery is fully charged. This device also prevents excessive and injurious charging rates, for if the charging rate becomes abnormal the cut-out

*Electricity will operate
the fanning mill*





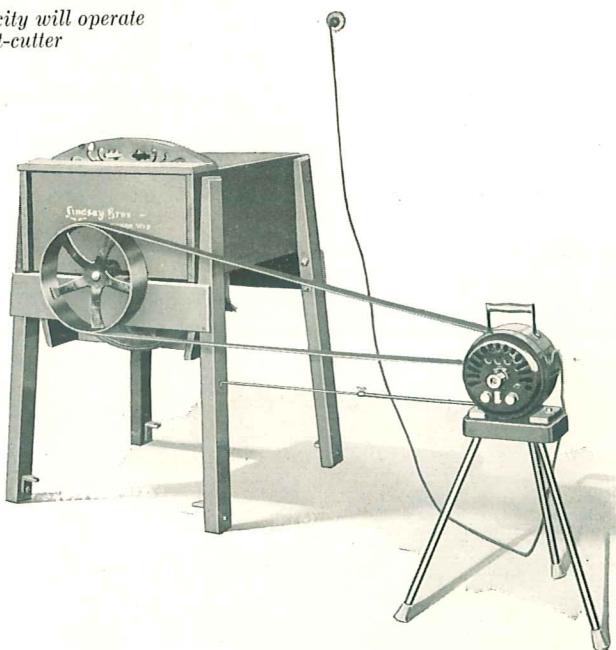
warns the owner by stopping the engine. The charging rate can then be adjusted to a safe and proper point. The cut-out therefore, insures the longest possible life of the storage battery, which is the part of the plant that requires the greatest care.

STORAGE BATTERIES

The most important part of the farm lighting plant is the storage battery. Extensive experience has led us to adopt the Faure type of battery in sealed glass jars because this type has proven thoroughly reliable for stationary lighting service as the plates do not lose capacity under slow discharge rates or light working conditions.

The glass sealed jars permit convenient inspection of the cells at all times and make it possible to determine the condition of the elements and, in a large measure, the state of charge. As the battery is being charged the solution gasses. This, of course, can be readily observed through the glass jar. It is also possible to determine the amount of sediment that slowly

*Electricity will operate
the root-cutter*





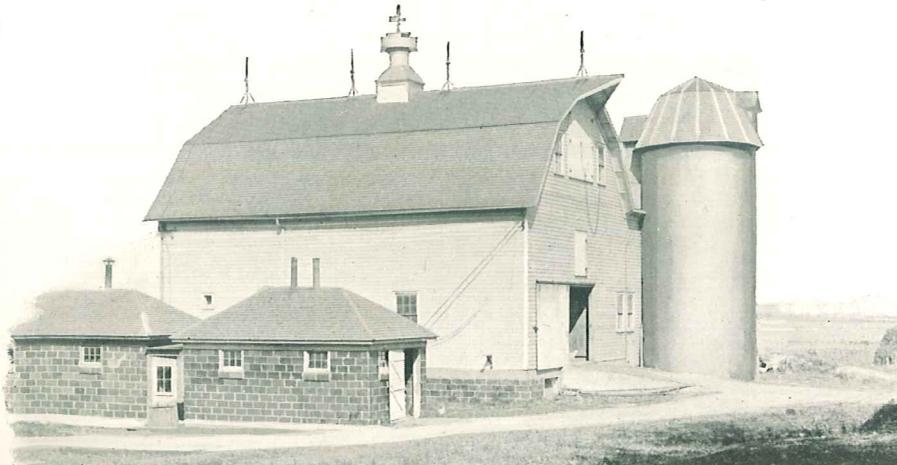
accumulates in the bottom of the cell. A specially constructed bridge rest of proper height to give ample clearance is a valuable feature of these batteries.

The batteries supplied with the GLOBE Light and Power Plant will give from six to eight years of service or more when the correct size battery is selected.

LOCATION AND SETTING UP OF GLOBE LIGHT AND POWER PLANT

In order that you may immediately install and obtain service from a GLOBE Light and Power Plant when it is received, the following information for building a proper foundation and constructing a Battery Rack with suggestions for location are given. A GLOBE Light and Power Plant has a well balanced single cylinder, four cycle engine running at 1200 RPM. In fact, it is so well balanced that it will operate while standing on glass bottles. It is desirable, however, to have a perfectly rigid foundation, which makes for quiet running and successful operation of the Plant. A good Battery Rack is also desirable. The Battery Rack may be placed at any convenient distance from the engine. 15 ft. of wire are attached to the switchboard for connection to the battery. It is desirable the battery be so placed that this length of wire will reach, although the Battery may be placed at any distance from the engine providing wires large

*An ideal installation—
lighting plant in
power house*





enough are used for connections. The installation of a Lighting Plant should be regarded as a permanent improvement and sufficient consideration should be given to this subject to make a good installation.

LOCATION FOR PLANT

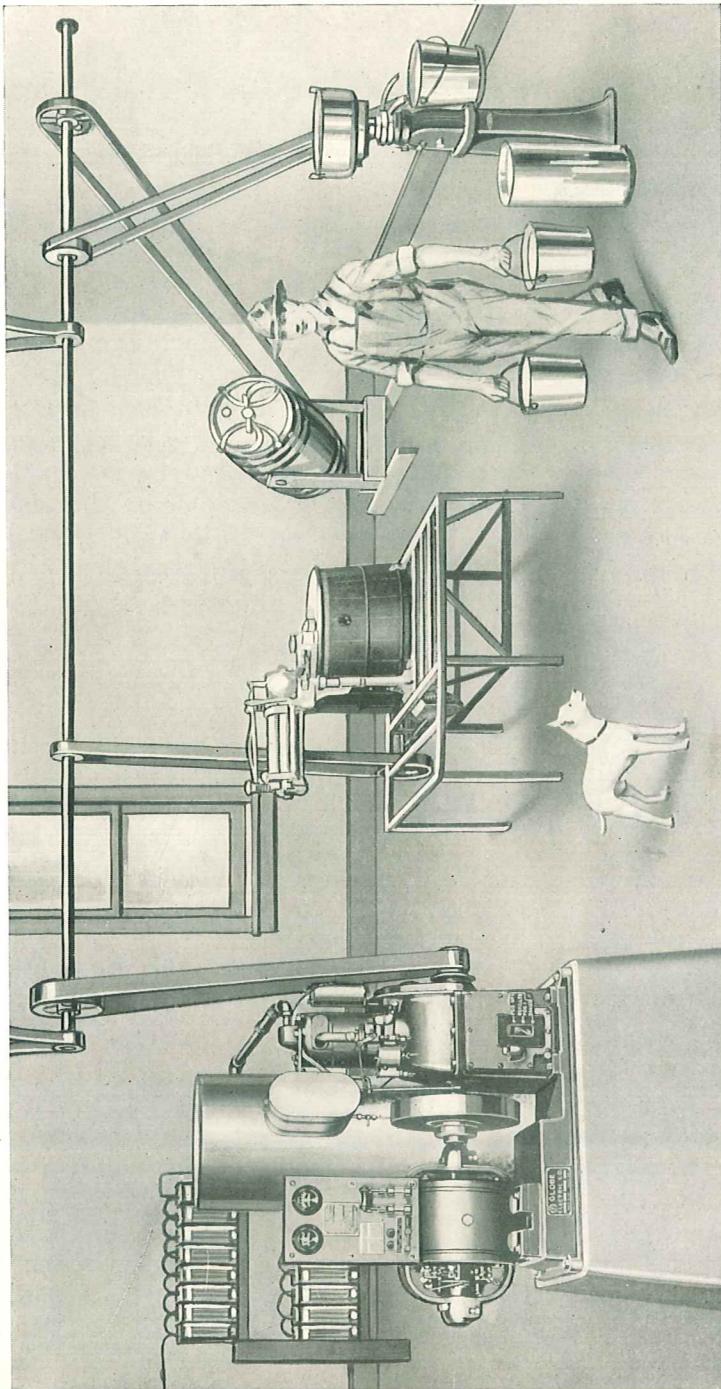
The Plant should be located in a clean, dry place. If a line shaft or other apparatus is to be driven directly from the engine pulley, this must be taken into consideration in planning the belt arrangement and locating the engine. A belt running straight up from the engine or running from the front of the engine should be avoided. The most desirable arrangement for a line shaft is either on a wall or floor back of the engine or on the ceiling back four or five feet from engine pulley so that belt will slant upwards. The same applies to any individual machine to be driven from the belt pulley.

The Plant should be so arranged that the exhaust pipe can be conveniently run to the outside of the premises. The preferable arrangement is to have the exhaust pipe go right straight back from the cylinder through a wall. The exhaust pipe should not come in contact with wood. Where it is necessary that it pass through wood, it must be enclosed in a sheet iron thimble. Exhaust connection is made from a horizontal outlet on rear of cylinder in the direction of the back of foundation.

The Battery should be placed so that it is not near a hot place—a furnace or hot water circulating tank—as heat is injurious. A location where water will not freeze is also desirable.

FOUNDATION FOR ENGINE

After having planned the best arrangement for belt driven machinery or line shaft and the most desirable location has been selected, install the foundation as shown in Figure A, If the soil is soft, it may be necessary to extend the foundation into the ground six to twelve inches more than shown, to insure securing a firm base. A wood form can easily be made and should be made for the full height as shown in Figure A as a lower foundation makes it inconvenient to operate the Lighting Set and does not present as nice and substantial an appearance as the full height foundation. Four $\frac{1}{2} \times 10$ inch carriage or machine bolts should be used. The purpose of the small pieces



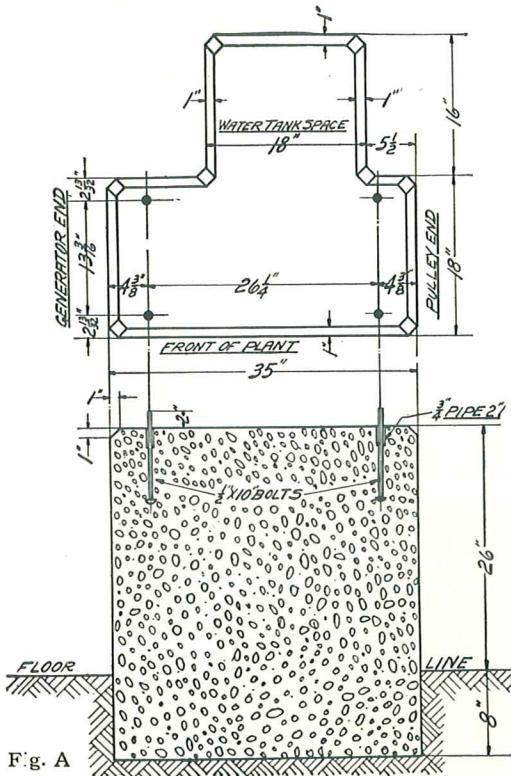
Interior of farm power house, showing Globe Light and Power Plant operating machinery by belt power and charging battery.



of pipe on the top of the foundation is to permit moving the bolts slightly should this be necessary when the engine is set in place. These cylindrical pieces may be of heavy paper, tin or anything to provide the desired air space around bolt. The foundation must be level on top.

CONCRETE MIXTURE

A good mixture may be made by using five parts of sand or unscreened gravel to one of cement. The amount of cement depends upon the quality of the cement and the sharpness of the sand. A mixture of one part cement, two parts sand and three parts small stones about 1 inch in size will do very well. The concrete must be thoroughly mixed with sufficient water to form an easy flowing mass. After the form is removed, the sides and top of the foundation should be trowelled with a mixture of one part cement and two parts fine sharp sand so





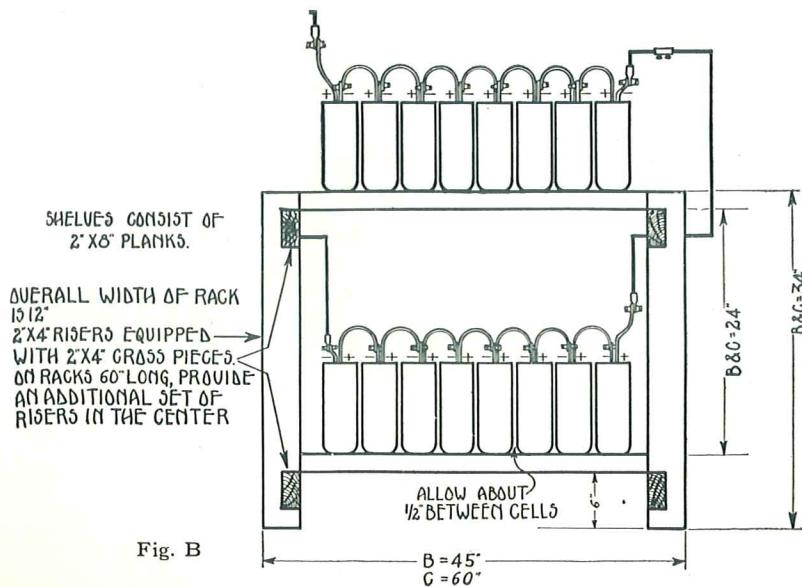
that it will present a smooth and neat appearance. Sufficient time must be allowed for the foundation to harden, which will vary, according to the atmospheric condition, from five to ten days.

BATTERY RACK

A substantial Rack should be provided for batteries. The presence of acid makes it important that care should be exercised to build a rack that is not likely to collapse through rusting of notches and weakening of parts. The Rack shown in Figure B can be easily made from 2x4's and 2 inch planks. A coat of asphalt paint will make it as nearly acid proof as possible.

Use dimensions "B" of Figure B for 110 or 150 A. H. Battery and dimensions "C" for 180 A. H. Battery.

In installing and setting up the GLOBE Light and Power Plant bear in mind that a good installation, in addition to presenting a pleasing appearance, adds to the pleasure and practical service derived from the Plant.





THE VALUE OF AN ELECTRIC LIGHTING PLANT LIES IN WHAT IT CAN DO

Here are the twelve outstanding features of the GLOBE LIGHT AND POWER PLANT. All plants contain some of them, but no other plant contains all of them.

1. It starts by pressing a button.
2. The charging rate to the battery can be varied. This permits charging the battery at the correct rate and lengthens its life.
3. It stops automatically when the battery is fully charged.
4. Either gasoline or kerosene can be used for fuel.
5. The entire power of the engine may be used through a belt from the pulley.
6. The engine may be used to generate current only.
7. The battery may be charged and belt power used at the same time.
8. Light may be burned from the battery only.
9. Lights may be burned from the generator only.
10. Small motors may be driven from the battery current only.
11. Larger motors and electrical devices may be driven from the generator only.
12. The maximum electrical capacity of the plant for either lights, motor or electrical devices, is the combined capacity of both the generator and storage battery.

NO PLANT CAN DO MORE—
ONLY FEW AS MUCH



CONDENSED SPECIFICATIONS OF THE GLOBE LIGHT AND POWER PLANT

32 Volt Globe Light and Power Plant

The Globe Light and Power Plant is a compact engine set assembled on a substantial cast-iron base having a 3 H.P. kerosene or gasoline engine direct-connected by means of a flexible coupling to a 25 ampere 40 volt (1 kilowatt) generator with switchboard mounted on generator; a water cooling tank, and a 16 cell glass jar Faure type lead battery in capacities of 110, 150, or 180 ampere hours as may be required, comprising a complete 32 volt electric light and power plant with a power pulley for driving machinery direct from engine by a belt. When supplied with fuel, oil, and water the engine is started by pressing a button and automatically stops when battery is fully charged.

Engine Specifications

TYPE: 3 H.P. 4 cycle, vertical, water-cooled, single cylinder "L" head, speed 1200 r.p.m.

CYLINDER: 2 $\frac{3}{4}$ inch bore, 4 inch stroke, water-jacketed semi-steel casting which also forms the upper half of crank case and is designed to carry all of the moving parts of engine.

CYLINDER HEAD: Removable head of special construction for kerosene operation, with copper gasket which does not require renewal when replacing head.

BASE PLATE: Engine set mounted on substantial cast-iron plate with oil trough around all sides.

CRANK CASE: Large size with reservoir capacity sufficient to hold one gallon of lubricating oil.

HAND HOLE COVER: Large plate covers front of crank case making it easy to inspect and adjust interior working parts.

OIL INDICATOR: Oil level always plainly in sight through a window in front of crank case which is automatically kept clean. Oil filler plug is located so that it is at just the right height for full oil position.

BEARINGS: Die cast babbitt liners; main crank-shaft bearings 1 $\frac{3}{8}$ inches diameter, 2 inches long; crank-pin bearing 1 $\frac{3}{8}$ inches diameter, 1 $\frac{5}{8}$ inches long. Piston-pin bearing removable bronze bushing 11-16 inch bore.

CRANK SHAFT: Highest grade steel forging 1 $\frac{3}{8}$ inches diameter, balanced with counter-weights.

CONNECTING ROD: Light weight steel forging of such dimensions that it may be drawn out with piston through cylinder; removable bronze bushing at upper end; adjustable babbitt liners at crank end.

PISTON: 3 inches long, 2 $\frac{3}{4}$ inches diameter, equipped with three piston rings insuring high compression.

CAM SHAFT: Hardened ground steel forging with an extension cam for timer.

TAPPETS: Hardened ground steel tappets with large mushroom heads and hardened adjusting screws and lock nuts.

VALVES: 1-5-16 inches diameter, mechanically operated.

GEARS: Spiral cut gears; cam shaft gear made of cast iron, crank shaft gear made of Bakelite Micarta insuring noiseless gear operation.

FLY-WHEEL: Weight 55 pounds, carefully balanced, held in position with large key and hexagon nut. Perfectly balanced parts insure smooth operation and minimum vibration.

GOVERNOR: Centrifugal type, very sensitive, controlling speed within 2 $\frac{1}{2}$ per cent. Connected to carburetor throttle valve and controlling in proportion to the load the amount of fuel supplied to engine.

HAND CONTROL: In addition to automatic governor, a hand throttle is provided for operating engine at low speed thus greatly increasing economy of operation and life of engine.



COUPLING: Flexible coupling connects engine and generator shafts and is designed to permit easy separation and re-assembling of engine and generator units without destroying alignment of the units.

POWER PULLEY: 3½ inches diameter with 3½ inches crown face, for belt driving line shaft and machinery direct from engine. The pulley can be used for power purposes while the battery is being charged.

IGNITION: 32 volt ignition is used, involving the fewest possible parts, contact arm being the only moving part. Timer, coil, and spark plug are in most accessible positions; wire to spark plug being only 5 inches long; wire between spark coil and timer only 12 inches long and only one wire (in armored cable) connection to switchboard.

CARBURETOR: Standard automobile type with float feed. Float bowl arranged with cover that can be instantly removed for inspection or filling with gasoline to start and heat engine when kerosene is used as fuel.

FUEL TANK: Capacity one gallon; made of heavy sheet metal with strainer cup for filling, supply tube to carburetor extending half inch above bottom thus avoiding sediment reaching carburetor, also plug for draining and valve for shutting off fuel supply to carburetor.

FUEL: Special construction of engine secures splendid operation with kerosene, one ounce of gasoline or less starts and warms up engine in the coldest weather. This is applied in a very convenient manner in the carburetor bowl.

COOLING SYSTEM: Engine water-cooled with thermo-syphon circulation; large water tank 35 inches high, 14 inches diameter, capacity 23 gallons.

LUBRICATION: Splash system lubricates all parts of engine, oil being carried in crank case, capacity one gallon.

MUFFLER: Substantial muffler reduces exhaust noise to a minimum.

TOOLS: Complete set of wrenches and a hand crank accompany each engine.

Electrical Specifications

GENERATOR: Normal capacity 1000 watts, 40 volts, 25 amperes. Two bearing type, self contained, with large oil wells, ring oilers, and compound starting coils.

SWITCHBOARD: Mounted directly on generator, is of town lighting plant design provided with voltmeter, ammeter, fused service switch, load control switch, starting switch and contactor to prevent reversal of current from battery, ignition switch for stopping and cranking (when necessary), and automatic cut-out for disconnecting battery and stopping engine when battery is fully charged.

BATTERIES: 16 cell sealed glass jar Faure pasted plate type, charged ready for use, furnished in 110, 150, or 180 ampere hour capacity based on 72 hour intermittent discharge. A syringe hydrometer, 18 lead covered bolts, 4 lead covered terminal connectors, and an extra supply of 1 gallon of electrolyte is included with each battery.

General Specifications

DIMENSIONS: Overall dimensions engine set without water tank, 37 inches long, 15 inches wide, 28 inches high. Water tank 35 inches high, 14 inches in diameter.

WEIGHT: Net weight of engine set, 400 pounds. Shipping weight of engine set with water tank, 475 pounds. Shipping weight, 110 A.H. battery 525 pounds; 150 A.H. battery 640 pounds; 180 A.H. battery 730 pounds.

INSTRUCTIONS: A most complete instruction book gives simple instructions for setting up and contains formula for preparing non-freezing circulating solution and a lot of useful information about the operation and maintenance of plant.



32 VOLT GLOBE LIGHT AND POWER PLANTS
CAPACITY AND WEIGHTS

Plant No.	Battery Ampere Hour Capacity	Battery Lamp Capacity in 20-Watt Lamps			Battery Ampere Capacity			Combined Lamp Capacity of Generator and Battery in 20-Watt Lamps			Generator Lamp Capacity in 20-Watt Lamps	Generator Ampere Capacity	Generator Lamp Capacity in 20-Watt Lamps	Approximate Shipping Weights
		8 Hour Discharge Rating	72 Hour Intermittent S. A. E. Rating	8 Hour	5 Hour	3 Hour	8 Hour	5 Hour	3 Hour	8 Hrs.	5 Hrs.			
DC200	90	110	17	23	34	11.25	15.30	22.50	55	61	25	38	38	1020
DC201	120	150	22	31	45	15.00	20.40	30.00	60	69	25	38	38	1135
DC203	150	180	28	38	56	18.75	25.50	37.50	66	76	25	38	38	1225

ORDER

BR 11—Battery Rack for 110 and 150 Ampere Hour, 16 cell Battery.

BR 12—Battery Rack for 180 Ampere Hour 16 cell Battery.



FACTORY NO.2

These photographs show our factories. The rapid growth of our business has compelled us to take quarters in several buildings, which will ultimately be consolidated into one large factory site. We now occupy nearly two acres of floor space.

Factory No. 1. is where we make Switchboards. The General Offices of the Company are also in this building.

Factory No. 2. This entire building is devoted to the manufacture of Storage Batteries.

Factory No. 3. We occupy space in this building on the 6th and 7th floors, which is devoted to the manufacture of Engines.

